

## HYDROGEN MANAGEMENT SYSTEM FOR A FUEL CELL

### ABSTRACT OF THE DISCLOSURE

Improved containers have therein fuel, such as metal, in contact with an aqueous  
5 electrolyte. At least one recombination catalyst separate from the electrolyte is in gas  
communication with the container and, in some embodiments, a separate oxygen source  
supplies oxygen for the reaction with hydrogen gas. Generally, the recombination  
catalyst catalyzes the reaction of hydrogen and oxygen to form water. For example, the  
recombination catalyst can be attached to the top of the container, located in a cavity  
10 formed in the top of the container, provided to a portion of a vent connected to the  
container, or a combination thereof. In some embodiments, the oxygen source can be  
ambient air from outside the container or can be supplied from a suitable container.

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